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BIRDS OF SITKA AND VICINITY, SOUTHEASTERN ALASKA

By GEORGE WILLET

WITH ONE PHOTO BY E. W. MERRILL

DURING the summers of 1912 and 1913, which the writer spent in the neighborhood of Sitka, Alaska, in the interests of the Bureau of Biological Survey, much time was devoted to the general ornithology of this most interesting section. All the writer's personal notes on this district were made between July 14 and September 2, 1912, and between July 20 and October 3, 1913.

Some of this time was spent in the immediate vicinity of Sitka, and frequent visits were made to Kruzof, St. Lazaria and Biorka islands, as well as to many of the smaller islands in Sitka Sound. I also traversed rather thoroughly several of the more important ranges on Baranof Island, and three times climbed Mt. Edgecumbe, an extinct volcano and the highest peak on Kruzof Island. Finally, through the courtesy of U. S. Forest Ranger George Peterson, I made a trip on the Forest Service launch through Peril Straits to Hooniah Sound and Tenakee Inlet, Chichagof Island, down the east side of Baranof Island as far as Patterson Bay, and across Chatham Straits to the western shores of Kuiu and Admiralty islands. Landings were made many times during this trip and I was enabled to make investigations of the bird-life in these localities.

My trips around Sitka Sound were generally made in a row boat which was furnished me through the kindness of Mr. Arthur Shoup, Representative to the Territorial Legislature. The trips into the mountains were made on foot and my camp outfit, guns, ammunition, etc., were carried on my back.

On some occasions I travelled alone, but I was several times accompanied by Mr. E. W. Merrill of Sitka, by Mr. Robert Bardon of Grant's Pass, Oregon, and by Forest Ranger Peterson. To each of these three gentlemen I am indebted for much assistance rendered and information given. Mr. Merrill, who is a fellow member of the Cooper Club, has resided in Sitka for over ten years, during which time he has taken a number of valuable specimens, and made many interesting notes on the birds of the region. He very kindly turned over to me all his notes, and the information obtained therefrom has added materially to this paper. I also received many courtesies and much valuable information from Deputy United States Marshals John Goodell and James Brightman, and am indebted to Mr. A. J. Wilkus, formerly in charge of the government experimental station at Sitka, for several specimens of raptorial birds secured by him in the neighborhood of his chicken yard.

For assistance in ascertaining the identity of specimens, obtaining previously published literature, and in looking up old records, I am greatly obligated to Mr. Joseph Grinnell, of the University of California Museum of Vertebrate Zoology, Mr. H. S. Swarth, of the Los Angeles County Museum of History, Science and Art, Prof. Wells W. Cooke, of the United States Biological Survey, and Mr. W. Lee Chambers of Eagle Rock, California.

The territory herein referred to as Sitka and vicinity comprises Baranof, Kruzof and Chichagof islands with their outlying islets and contiguous waters. As is well known, this district is one of excessive moisture and luxuriant vegetation. On all of the islands, large and small, dense forests of spruce, hemlock and cedar extend down to the very edge of the water. Along the larger streams alders and willows are plentiful, and in many localities a dense undergrowth of

salmon-berries and devil-club, together with fallen logs, makes the woods almost impenetrable. On the slopes of the mountains some distance back from the water's edge are extensive open, boggy meadows covered with coarse grass and various kinds of berry bushes, and sparsely timbered with the squaw pine. Above timber-line, which is at about 2500 feet altitude, two species of heather flourish, furnishing food and protection to ptarmigan, pipits and Savannah sparrows. In walking through the forests, and swamps, and over the bare tops of the mountains, one who is familiar with the abundant bird-life of more favored sections of the United States, is at once struck by the extreme scarcity of bird-life. I once walked for four hours on the mountains of Chichagof Island without seeing a single bird. The only places where land birds are in any sense plentiful are around



Fig. 33. THE SUMMER HOME OF THE DIXON ROCK PTARMIGAN: GREAT EASTERN MOUNTAINS, BARANOF ISLAND, SOUTHEASTERN ALASKA. PHOTO TAKEN SEPTEMBER 25, 1911.

the edges of clearings, in the grass and underbrush bordering the beach, and along streams.

When, however, the ornithologist becomes weary looking for birds where there seemingly are no birds, he may turn his attention to the salt water and the ever interesting variety of water fowl to be found thereon. Gulls, auklets, murrelets, puffins, petrels and many other interesting groups are here in plenty, many species nesting on the outlying islands, others being migrants or stragglers. The most important breeding ground of the water fowl in the vicinity is St. Lazaria Island, a National Bird Reservation, about fifteen miles from Sitka and close to Kruzof Island. There are less important nesting colonies of water birds on the small islands off Biorka, and on Sea Lion Rocks west of Kruzof Island.

This section has many times in the past been visited by ornithologists, the

most noteworthy of these and the time of their visits being as follows: F. H. von Kittlitz, summer of 1827; Ferdinand Bischoff, 1865-66; Tarleton H. Bean, June, 1880; Joseph Grinnell and Joseph Mailliard, summer of 1896; Prof. W. T. Shaw, summer of 1906, and the Alexander Expedition to southeastern Alaska, summer of 1907. I have incorporated in this paper many items from the published notes of these observers, but have omitted a few early records which seem to me to be of doubtful authenticity.

With a few exceptions I have followed the nomenclature adopted by the A. O. U. Committee in the *Check-List* of 1910, and supplement to the same.

***Colymbus holboelli*.** Holboell Grebe. Whether this species is a rare resident or only an occasional straggler in the Sitkan district, is a matter yet to be determined. I did not note it at all during 1912, but during 1913 saw it on Sitka Bay on three occasions, as follows: One bird near St. Lazaria Island, July 24; two birds near Sitka, August 14, and one bird at Silver Bay, September 21. The species was taken at Sitka by Bischoff during the Russo-American Telegraph Expedition (Dall & Bannister, 1869, p. 308).

***Gavia immer*.** Common Loon. Noted frequently on salt water throughout the Sitkan district. Most plentiful after August 15.

***Gavia pacifica*.** Pacific Loon. At no time during my stay was I able to positively identify this species. Loons, while plentiful, were invariably wild, and I was unable to approach close enough to distinguish the differences between this species and the next. Grinnell (1898, p. 124) records a specimen of the Pacific Loon taken at Sitka by Dr. Wilber, June 26, 1896. It is probably a regular migrant.

***Gavia stellata*.** Red-throated Loon. Fairly common summer visitant on fresh water lakes. Plentiful on salt water during migrations. According to Merrill, a pair of these birds nest on Swan Lake, near Sitka, each year. They arrive about April 15, and the eggs are deposited about June 1. During my stay in Sitka, this pair had young on the lake, and they could be seen many times each day flying directly over the town to the salt water in search of food. Their loud quacking notes could often be heard before the birds were visible.

***Lunda cirrhata*.** Tufted Puffin. Abundant resident. About two thousand pairs nesting on St. Lazaria Island. A few also nesting on small islets off Bior-ka Island. Grinnell (1898, p. 124) noted fresh eggs in the former locality June 17, 1896. At the time of my visits to the nesting grounds in late July and August, the nesting cavities nearly all contained young.

***Fratercula corniculata*.** Horned Puffin. About a dozen pairs of these puffins were nesting on St. Lazaria Island. The nest cavities were located in the most inaccessible cliffs on the island. Not noted elsewhere in the vicinity.

***Cerorhinca monocerata*.** Rhinoceros Auklet. Fairly common on Sitka Bay throughout my stay. A colony of about two hundred pairs was nesting on St. Lazaria. The young were raised and the nesting colony deserted, however, before the time of my arrival on the island in late July. In one burrow an adult bird and a nearly grown young were found dead, the nest cavity having been caved in by a bear and the birds either crushed or smothered (Willett, 1912, p. 423). The burrows of these birds are entirely different in construction and location from those of any of the other birds nesting on the island. They are much larger than those of the petrels, and longer and differently located than those of the puffins. The colony is well up toward the top of the island among the timber, and the burrows frequently run under logs and among the roots of the trees.

Phaleris psittacula. Paroquet Auklet. I several times saw birds that I believed to be of this species among the islands in the bay, but was never able to approach within gun shot. Grinnell (1898, p. 124) records a specimen taken by Fred Frobes near Sitka June 8, 1896, and, according to Finsch (1873, p. 82), a specimen from Sitka is in the Leyden Museum. This record is probably taken from Schlegel.

Synthliboramphus antiquus. Ancient Murrelet. Rather common on the more exposed bodies of salt water during my entire stay, and probably occurs throughout the year. Not so plentiful as the next species. On August 2, 1913, I found two broken eggs, apparently of this bird, in a burrow among the grass roots on a steep hillside on St. Lazaria Island. One of the eggs was in a fair state of preservation, but they were apparently at least a year old when found.

Brachyramphus marmoratus. Marbled Murrelet. Abundant on salt water throughout the district. The young were raised and on the water at the time of my arrival, and I was unable to secure any information as to the location of the nesting grounds.

Brachyramphus brevirostris. Kittlitz Murrelet. An adult bird secured at Biorka Island, July 24, 1912, was the only one noted.

Cephus columba. Pigeon Guillemot. Rather plentiful on salt water. Nesting in considerable numbers on St. Lazaria, and in smaller numbers on islands off Biorka.

Uria troille californica. California Murre. Common on salt water everywhere. The only nesting colony visited was in a large cave on St. Lazaria Island. This colony numbered about three hundred pairs. The young were nearly all hatched by August 15.

Stercorarius parasiticus. Parasitic Jaeger. Not noted at all during 1912, but during 1913 seen on Sitka Bay as follows: Two birds near St. Lazaria Island July 24, and one bird at Crab Bay, Kruzof Island. August 27. On September 9 the species was fairly common in Chatham Straits on the east side of Baranof Island.

Rissa tridactyla pollicaris. Pacific Kittiwake. According to Merrill, this bird occurs throughout the year in the vicinity of Sitka. It was very plentiful everywhere on salt water during the time I spent in the section. Although birds in adult plumage were common throughout the summer, no evidence of their nesting was found.

Larus hyperboreus. Glaucous Gull. Merrill secured an immature bird of this species at Sitka, November 3, 1908. I did not note it in this locality, but saw several birds along the mainland shore between Juneau and Petersburg, October 6-7, 1913.

Larus glaucescens. Glaucous-winged Gull. Abundant resident. According to Merrill, less plentiful in winter than in summer. I found this species nesting in considerable numbers on St. Lazaria and on small islands off Biorka.

Larus argentatus. Herring Gull. This gull was first noted at Sitka, October 2, 1913, several birds appearing in the harbor on that date. During the trip from Sitka to Seattle, October 2-10, these birds were abundant, and a large number followed the boat all the way. This is probably a regular migrant.

Larus brachyrhynchus. Short-billed Gull. Two birds seen in Sitka Harbor, October 2, 1913. Also noted at Juneau, October 5, and at Petersburg, October 7. Probably a regular migrant throughout the region. Secured at Sitka by Bischoff during the Russo-American Telegraph Expedition (Dall & Bannister, 1869, p. 305). Noted by the 1907 Alexander Expedition at Red Bluff Bay, Baranof

Island, in June; at Bear and Rodman bays, Baranof Island, in August, and at Hooniah and Idaho Inlet, Chichagof Island, in June and July (Grinnell, 1909, p. 190).

Larus philadelphia. Bonaparte Gull. Seen occasionally on Sitka Bay throughout the summer. More plentiful on the east side of Baranof Island, on Admiralty and Kuiu islands, and along the mainland shore.

Xema sabini. Sabine Gull. Three immature birds seen, two of which were secured on Sitka Bay, August 3, 1913. Not further noted.

Sterna paradisaea. Arctic Tern. Seen on two or three occasions on Sitka bay during the summer of 1912. Not noted in that locality in 1913. Plentiful, and apparently nesting on gravel bars in Taku Inlet, on the mainland, July 19, 1913.

Diomedea nigripes. Black-footed Albatross. Four birds seen on the west coast of Baranof Island, September 2, 1912. According to Merrill, this bird is occasionally seen in Sitka Bay during stormy weather. He secured a specimen May 20, 1908.

Fulmarus glacialis glupischa. Pacific Fulmar. One bird in the dark phase of plumage seen in Chatham Straits, east side of Baranof Island, September 6, 1913.

Puffinus griseus. Sooty Shearwater. Common on Sitka Bay during August and September. Also seen in Chatham Straits, September 5-9, 1913.

Aestrelata fisheri. Fisher Petrel. Merrill secured a male specimen of this rare petrel near Sitka, May 17, 1908. Now in collection of University of Washington.

Oceanodroma furcata. Forked-tailed Petrel. I estimated that there were about two thousand pairs of these birds nesting on St. Lazaria, the only place in the region where they were found breeding. Their nests were nearly all located among the grass roots on the steeper hillsides, and the young were practically all hatched by the middle of July. Grinnell (1897a, p. 76) found the eggs mostly advanced in incubation June 17, 1896. The only time that I noted any of these petrels away from the breeding colony was September 30 and October 1, 1913, when about thirty birds were seen feeding around the Sitka docks. At this time the weather was very stormy outside. Merrill states that he has occasionally seen this and the next species on Sitka Bay in fall and spring, but never in great numbers.

Oceanodroma beali. Beal Petrel. Although this form has not been recognized by the A. O. U. Committee, I find that a series of breeding birds from St. Lazaria Island are uniformly smaller than specimens of *O. leucorhoa* from the Atlantic coast, thus substantiating the characters ascribed by Emerson (1906, p. 54) to the form *beali*. In wing and tail measurements *beali* is intermediate between *leucorhoa* and *kaedingi*, slightly nearer the latter. In *beali* the wing averages about .5 inch shorter than in *leucorhoa*, and about .4 inch longer than in *kaedingi*. The tail is about .25 inch shorter than that of *leucorhoa* and the same amount longer than that of *kaedingi*. In color *beali* is slightly grayer than *kaedingi*. I estimated that there were about twenty thousand pairs of these petrels in the St. Lazaria colony. They were nesting on the grassy hillsides in company with the last species and also on top of the island among the timber. They breed generally later than *furcata*. Many nests containing fresh eggs were noted as late as July 31 (1912). Grinnell (1897a, p. 76) found the eggs of this species all fresh June 17, 1896.

Phalacrocorax auritus cinnamatus. White-crested Cormorant. This bird is evidently only an occasional straggler to the vicinity of Sitka. It was not seen

at all by me, but Merrill reports its occasional occurrence. He secured a specimen in the spring of 1906, and another in the spring of 1908. Two specimens taken at Sitka by Bischoff are mentioned by Dall and Bannister (1869, p. 302), and Finsch (1873, p. 86) speaks of a specimen from Sitka being in the Leyden Museum (probably quoted from Schlegel).

Phalacrocorax pelagicus pelagicus. Pelagic Cormorant. Fairly common everywhere on salt water, but, according to local observers, much less abundant than formerly. In 1912 a few pairs were nesting on the small islands off Biorka, and about one hundred and fifty pairs were breeding on St. Lazaria. In 1913, although I canvassed the latter island thoroughly, I failed to find a single occupied nest. The birds, mostly immatures, were plentiful around the island but were not nesting. Brightman informs me that fifteen years ago this bird nested in great numbers on St. Lazaria, and Grinnell (1898, p. 126) found them abundant in 1896. The only explanation I can offer for their diminishing numbers is the persistent depredations of the Northwestern Crow (*Corvus caurinus*), which species appears to subsist to a great extent in summer on the eggs and young of the luckless cormorants. In 1912 I found the ground under the crows' roosts literally covered with the shells of cormorants' eggs and I doubt if any of the cormorants raised a full brood.

Although the pelagic cormorants of this district have been referred to *P. p. robustus*, I find that the characters ascribed to that form are not to be found in a series of specimens taken.

Mergus americanus. American Merganser. Not very common. I saw an adult male near Old Sitka, August 16, the only one personally noted. Merrill took a male near Sitka, October 20, 1908, and saw two birds that were shot in the same locality in the spring of 1903. The species was also noted at Sitka by Bischoff (Dall and Bannister, 1869, p. 301). Two females with broods of young were seen by F. Stephens at Red Bluff Bay, Baranof Island, June 19, 1907, and a downy young was secured by J. Dixon in the same locality two days earlier. The species was seen once at Hooniah, Chichagof Island, the last week in June (Grinnell, 1909, p. 193).

Mergus serrator. Red-breasted Merganser. Fairly common summer visitant. According to Merrill, appears in early May and leaves mostly in October. I noted this saw-bill in many different localities on both fresh and salt water, and saw broods of young at Tenakee Inlet, Chichagof Island, and Silver Bay, near Sitka. The flesh of this species was found to be very palatable, although by the time the birds arrive in California, they are generally strong-tasting and unfit to eat.

Anas platyrhynchos. Mallard. Breeds in small numbers; abundant during migrations, and, according to Merrill, a few remain throughout the winter. In early September appeared in large numbers at mouths of streams, and was still abundant at the time of my departure in early October. Merrill states that, while he has never found the nest, he has noted downy young on several of the fresh water lakes in the vicinity.

Chaulelasmus streperus. Gadwall. Merrill secured a specimen of this duck at Lisianski Bay, near Sitka, September 22, 1911. This is the only record I have seen for the region.

Mareca americana. Baldpate. Apparently a rare migrant, much more plentiful along the mainland shore. Merrill took one specimen at Sitka in the fall.

Nettion carolinense. Green-winged Teal. According to Merrill, abundant in spring and fall, less plentiful in winter, and a few remain through the summer and breed around fresh water lakes. I found this species plentiful in com-

pany with mallards and pintails around mouths of fresh water streams in September, 1913.

***Spatula clypeata*.** Shoveller. Rare migrant. Merrill saw two birds that were shot near Sitka in the fall of 1904, and Brightman took a specimen on Admiralty Island in 1898. According to hunters, fairly plentiful along the mainland shore near Juneau.

***Dafila acuta*.** Pintail. Fairly common migrant. I noted these birds on Sitka Bay in late August, 1913, and took two specimens near Sitka, September 26, following. The birds taken were feeding on a salt water snail (*Littorina sitchana*), and were gorged with the small shells. According to Merrill, occurs in the spring in late April and early May.

***Marila marila*.** Scaup Duck. According to Merrill, abundant in summer and in migrations, less plentiful in winter. So far has not been found nesting in the locality but probably does so occasionally, as Grinnell (1898, p. 126) notes a nearly fledged juvenile obtained July 15, 1896. I found these birds common in flocks among the islands throughout the summer.

***Clangula islandica*.** Barrow Golden-eye. Although it is very probable that both golden-eyes occur in this locality, the only record I have seen of specimens taken and positively identified is of the above species, secured by Bischoff (Dall and Bannister, 1869, p. 298). Merrill informs me that golden-eyes are most plentiful in spring and fall, but are found in small numbers throughout the year. He has taken downy young on Swan Lake, near Sitka, and Brightman has seen downy young on Chichagof Island. Neither of these two observers, however, were able to inform me as to which species of golden-eye these birds were referable. Swarth (1911, p. 43) records *C. c. americana* as quite common during April at Keku Straits and at Three-mile Arm, Kuiu Island. They were also seen on Prince of Wales Island in early May, following. *C. islandica* was not noted at all in this region. From these facts and from what is further known of the ranges of the two species, it is probable that *americana*, though it has so far not been definitely recorded from Sitka, will be found to be the commonest of the two forms in that locality.

***Charitonetta albeola*.** Buffle-head. According to Merrill, this duck is plentiful from October to May, but most abundant during migrations. It was taken at Sitka by Bischoff (Dall & Bannister, 1869, p. 298).

***Harelda hyemalis*.** Old-squaw. According to Merrill, the Old-squaw, or Pintail, as it is locally known, is a common winter visitant, not appearing in any numbers, however, until early November, and remaining plentiful until May.

***Histrionicus histrionicus*.** Harlequin Duck. Common throughout the year. I noted flocks of these ducks feeding around the rocks in many localities on Sitka Sound and neighboring inlets during the summer months. According to Grinnell (1898, p. 126), fully fledged young appear about August 5. The same observer saw an adult in June two or three miles up Indian River, where it was probably nesting. Deputy U. S. Marshal Goodell informs me that he has seen downy young at Old Sitka, and he believes the birds nest along the stream that empties into the bay at that point.

***Oidemia americana*.** Scoter. During September, 1913, I several times noted this species near Sitka. It was, however, not plentiful, being greatly outnumbered by the two following.

***Oidemia deglandi*.** White-winged Scoter. The most abundant of the surf ducks in this section. Plentiful on the salt water throughout the summer, and

even more abundant during migrations. According to Merrill, occurs also in winter.

Oidemia perspicillata. Surf Scoter. Seen occasionally during the summer months. Becomes more plentiful about August 15, and is abundant by the middle of September. Merrill states that it winters in considerable numbers. According to Dall and Bannister (1869, p. 300), Bischoff obtained the eggs of this bird near Sitka.

Anser albifrons gambeli. White-fronted Goose. Rather common in migrations, which occur mostly in October and April. Merrill has taken several specimens and seen many others that were killed in the vicinity. I saw two birds that were shot by Brightman on Swan Lake, September 29, 1913.

Branta canadensis canadensis. Canada Goose. Two specimens taken at Sitka by Bischoff (Dall & Bannister, 1869, p. 295).

Branta canadensis occidentalis. White-cheeked Goose. Fairly common summer resident, breeding around fresh water lakes and ponds. More plentiful during migrations. Known to nest in several localities near Sitka, also on Chichagof and Kruzof islands. By early September was plentiful in small flocks at the mouths of streams, but was exceedingly wild, and no specimens were obtained by me, though I saw several brought into Sitka that had been shot by Indians with rifles. These birds are easily domesticated and several small flocks have been reared by local people.

Philacte canagica. Emperor Goose. The A. O. U. *Check-List* (1910, p. 88) mentions Sitka as a record station of this species. Professor Cook informs me that this is based on the fact that Dresser (1903, p. 598) lists Sitka as a record locality for the species. There is no intimation anywhere in this work, however, to show what the basis of the record was.

As this goose has occurred in winter in British Columbia and has even been recorded at this season from northern California, it is not at all unlikely that it should occur occasionally at Sitka. For this reason I have followed the example of the A. O. U. Committee and included the species in this list, although the evidence as to its actual occurrence in the locality, as given above, must be considered weak unless it can be further substantiated.

Olor columbianus. Whistling Swan. According to Merrill, the Whistling Swan is rather a common migrant, the migrations taking place mostly in October and early November, and in April. During the fall migration, flocks frequently alight on lakes and ponds, but in spring they usually pass over without stopping. Merrill has seen flocks passing high above the mountain ranges during the spring migration. He secured a specimen October 30, 1912, and knew of seven birds being taken by an Indian in October and November, 1910. Brightman saw a flock of about twenty-five swans going over Sitka, September 28, 1913.

The flesh of this bird is much prized by the Indians, who cut it into strips and smoke it. They also use the skins with the down for making articles of clothing.

Ardea herodias fannini. Northwestern Coast Heron. Occasionally seen in many different localities. Partial to timber-bordered streams and kelp patches. I saw several of these birds that were brought into Sitka by boys and sold to a local Chinaman. They are highly prized as a delicacy by this race.

Grus canadensis. Little Brown Crane. According to Merrill and Brightman, a regular migrant but usually passing over without stopping. The latter gentleman has taken specimens near Killisnoo, west side of Admiralty Island.

Fulica americana. Coot. Rare straggler. Merrill took a specimen near

Sitka in September, 1908, and knows of two or three others being taken in fall.

Phalaropus fulicarius. Red Phalarope. The main migration route of this bird apparently does not include the vicinity of Sitka. The only time it was noted by me was on September 9, 1913, when three birds were seen in Chatham Straits, east of Baranof Island. They were closely examined through a glass and their identity positively determined.

Lobipes lobatus. Northern Phalarope. Common on salt water all through the summer, and very abundant during migrations. Frequently noted around tide rips feeding among the drift brought together by meeting currents.

Gallinago delicata. Wilson Snipe. According to Merrill, frequently seen on swamp lands in spring and fall. Taken at Sitka by Bischoff (Dall & Bannister, 1869, p. 291). I saw a single bird of this species in a swampy meadow near Sitka, September 13, 1913. This was the only one seen by me in the region.

Macrorhamphus griseus scolopaceus. Long-billed Dowitcher. An immature bird taken on Kruzof Island, August 27, 1913, was the only one noted. It was in company with seven Hudsonian Curlews.

Tringa canutus. Knot. Single specimen taken at Sitka by Bischoff (Dall & Bannister, 1869, p. 291).

Arquatella maritima couesi. Aleutian Sandpiper. Found abundant at Sitka by Bischoff (Dall & Bannister, 1869, p. 291). This species and several others of the waders which have been previously noted by Bischoff and others, were not seen at all by me. I believe this is due to a certain extent to the persistent persecution of birds of the wading group by local hunters. As soon as a flock of waders is seen on the beach, the hunters appear and bombard them until they are either all killed or leave the locality. As a result waders were uniformly scarce in the immediate vicinity during my entire stay.

Pisobia maculata. Pectoral Sandpiper. I found this species fairly plentiful at the head of Hooniah Sound, Chichagof Island, September 10, 1913, and secured several specimens. This is the only time I noted it, but it is probably a regular migrant. A single specimen was taken by Bischoff at Sitka (Dall & Bannister, 1869, p. 292).

Pisobia bairdi. Baird Sandpiper. One specimen obtained at Sitka by Bischoff (Dall & Bannister, 1869, p. 292).

Pisobia minutilla. Least Sandpiper. Abundant migrant. I saw this species in many different localities during the fall, and Merrill tells me it is plentiful in spring. Grinnell (1898, p. 126) noted it as early as July 2.

Pelidna alpina sakhalina. Red-backed Sandpiper. Evidently a rather rare migrant. I saw one specimen on an outlying rock near Kruzof Island, July 31, 1912, the only one seen by me in the vicinity. Bischoff took ten specimens at Sitka (Dall & Bannister, 1869, p. 291):

Ereunetes pusillus. Semipalmated Sandpiper. According to Dall and Bannister (1869, p. 292), this species was taken at Sitka by Bischoff. It has also been recorded by Swarth (1911, p. 52) from Thomas Bay, on the mainland opposite Kupreanof Island. All specimens of *Ereunetes* taken by me in the vicinity of Sitka were referable to the next species.

Ereunetes mauri. Western Sandpiper. Common migrant on sandy beaches. Became plentiful in late July and remained so up to the time I left, the first part of October. According to Merrill, is most abundant in the spring in April and early May.

Calidris leucophaea. Sanderling. Evidently a rare migrant. I saw one bird

on Kruzof Island, August 26, 1913, but did not note the species further. Two specimens were secured at Sitka by Bischoff (Dall & Bannister, 1869, p. 292).

Totanus melanoleucus. Greater Yellow-legs. Taken at Sitka by Kittlitz (1858, p. 250), and Bischoff (Dall & Bannister, 1869, p. 292).

Totanus flavipes. Yellow-legs. The only time I noted this species in the region was on July 24, 1912, when a flock of about a dozen birds was seen at the lake on Biorka Island, and two specimens secured. It has been previously recorded from Sitka by Kittlitz (1858, p. 258), and Bischoff (Dall & Bannister, 1869, p. 292).

Heteractitis incanus. Wandering Tattler. Frequently seen around rocky islands. Most plentiful on Kruzof.

Tryngites subruficollis. Buff-breasted Sandpiper. One specimen secured at Sitka by Bischoff (Dall & Bannister, 1869, p. 293).

Actitis macularius. Spotted Sandpiper. Common in late summer and fall on Kruzof Island and at head of Silver Bay. Occasionally noted in other localities. The 1907 Alexander Expedition secured an adult and a downy young at Port Frederick, Chichagof Island, July 27, and Dixon noted a pair that evidently had eggs or young near a stream at the head of Idaho Inlet, the same island, July 20-25 (Grinnell, 1909, p. 202).

Numenius hudsonicus. Hudsonian Curlew. Regular migrant but not very plentiful. I noted the species several times in late summer and fall, and Merrill has taken it in spring.

Squatarola squatarola. Black-bellied Plover. Apparently a regular migrant in small numbers. Noted several times on Kruzof Island in late summer and fall. A large flock was also seen near Killisnoo, Admiralty Island, September 5, 1913. Bischoff took three specimens at Sitka (Dall & Bannister, 1869, p. 290), and an adult male in summer plumage was taken by Bean (1882, p. 163) June 8, 1880.

Charadrius dominicus dominicus. Golden Plover. Rather rare migrant. Bischoff took the species at Sitka (Dall & Bannister, 1869, p. 289), and Grinnell (1898, p. 127) records an immature male taken by Professor Hindshaw August 16, 1896. Merrill secured a male in a swamp near Sitka, May 21, 1908. A single bird of this species was seen by Merrill and myself at an altitude of over 4000 feet in the Great Eastern Mountains, Baranof Island, September 18, 1913. It was flying over the snow banks and glaciers and seemed considerably out of its natural element.

Aegialitis semipalmata. Semipalmated Plover. Very common migrant. Fall migration begins late in July and continues through September.

Aphriza virgata. Surf Bird. During the two summers spent in the region, I failed to find this species, though it was particularly sought for, so it is apparently not plentiful. Bischoff secured four specimens near Sitka (Dall & Bannister, 1869, p. 290), and Grinnell (1898, p. 127) took sixteen birds from a flock on a rocky islet, July 21, 1896.

Arenaria interpres morinella. Ruddy Turnstone. Rare migrant. I secured a specimen on Kruzof Island, August 12, 1912. Two or three others were seen at the same time. They were with a large flock of the next species on a sandy beach.

Arenaria melanocephala. Black Turnstone. Abundant migrant. Noted occasionally during the summer months. These birds are known to the local hunters as "plover" and are killed in large numbers, as they gather in big flocks and

are easily approached. I have seen one hunter come into Sitka with over a hundred birds.

Haematopus bachmani. Black Oystercatcher. Fairly common on outlying rocky islands. This species is also hunted to a considerable extent, and from what I could learn, is not as abundant as formerly.

Dendragapus obscurus fuliginosus. Sooty Grouse. While this bird could hardly be considered abundant, it is very generally distributed and was noted in the timber in many different localities, perhaps most plentifully on Kruzof Island. Small young were seen on the latter island July 17, 1912. The old birds were found to be rather tough eating, but the birds of the year were very palatable after hanging two or three days.

Lagopus lagopus alexandrae. Alexander Willow Ptarmigan. Apparently much less plentiful than the next species. The only place I found this ptarmigan was at an altitude of about 3000 feet on the slopes of Mt. Edgecumbe, Kruzof Island. On July 31, 1913, a small flock made up of this and the next species was flushed from the heather above timber line and specimens of both secured. *Alexandrae* was not seen on Baranof, and Merrill has never taken it, so it can not be considered plentiful in the region. Two specimens taken near Sitka by Bischoff are mentioned by Dall and Bannister (1869, p. 287).

An adult male, the type of this subspecies, was secured with an immature male by F. Stephens at Bear Bay, on Peril Straits, north end of Baranof Island, August 26, 1907. Another adult male was taken by Mr. Stephens near Hooniah, Chichagof Island, June 25, the same year (Grinnell, 1909, p. 204).

Lagopus rupestris dixonii. Dixon Rock Ptarmigan. Fairly common on Baranof and Kruzof islands. I failed to find it on Chichagof, but it is said to occur there in some numbers. The type, an adult male, together with another adult, was taken by J. Dixon, near Port Frederick, Chichagof Island, July 30, 1907 (Grinnell, l. c., p. 207). During the summer months these birds keep well up toward the summits of the mountain ranges, above timber line, where they feed on heather buds and berries. Owing to the difficulties in ascending these mountains, specimens are hard to secure at this season. They apparently move in bodies from one section of the mountains to another, and locating them is largely a matter of luck. I have been in sections of the mountains where sign less than a week old was abundant, but the most diligent search failed to locate a single bird. Whether these changes of location are due to the weather or food supply, I am unable to state.

I secured specimens of this form above the Lucky Chance mine in the Great Eastern Mountains, Baranof Island, at an altitude of about 3500 feet, August 28, 1912, and at a little less altitude on Mt. Edgecumbe, Kruzof Island, July 31, 1913. One of the birds taken in the latter locality was a fledgeling about two or three weeks old. Merrill informs me that during the winter months these ptarmigan come down to the coast and are frequently seen in the central part of Sitka.

Zenaidura macroura marginella. Western Mourning Dove. One record. Merrill took a male near Sitka September 14, 1912.

Circus hudsonius. Marsh Hawk. I secured an immature female in the flesh which was killed by a hunter near Tenakee, Chichagof Island, September 3, 1913.

Accipiter velox. Sharp-shinned Hawk. Rather common in the timber everywhere. Frequently seen among trees in the town.

Astur atricapillus striatulus. Western Goshawk. I was unable to obtain any information as to the breeding of the goshawk in this region. It is most plentiful in the vicinity of Sitka in the fall, some years occurring in much greater num-

bers than others. During August, 1912, I noted the birds frequently and secured specimens, but during the same season the following year, they were very scarce, only one or two being seen.

Buteo borealis alascensis. Alaska Red-tail. Seen occasionally from the coast up to 4000 feet in the mountains. A specimen taken in the mountains of Baranof Island, August 28, 1912, was gorged with a small rodent (*Microtus*), while another taken on Kruzof Island, August 26, 1913, contained the remains of grouse. This hawk was most plentiful near the upper edge of the timber and was frequently seen hunting above timber line. Bean (1882, p. 162) records a specimen taken near Sitka June 5, 1880. J. Dixon took a specimen at Port Frederick, Chichagof Island, July 28, 1907 (Grinnell, 1909, p. 211).

Archibuteo lagopus sancti-johannis. Rough-legged Hawk. Taken at Sitka by Bischoff (Dall and Bannister, 1869, p. 272).

Haliaeetus leucocephalus alascanus. Northern Bald Eagle. The most common raptorial bird of the region, occurring from the ocean to the tops of the mountains. The nest is always placed near salt water, all those noted being in tall coniferous trees. The birds seen in the high mountains during the summer were nearly all immature. The young leave the nest late in August. According to Brightman, the eggs are deposited in late April and early May.

During the early summer months these birds apparently subsist to a considerable extent on fawns. Several dead eagles examined at this season were gorged with fawn meat, and the claws were covered with hair. The hunters of the region claim that the eagle is the worst enemy the deer have, and kill them at every opportunity. In the early fall when the salmon are running up the streams to spawn, these birds feed largely on fish, and they may be seen in numbers around every salmon stream. A nest examined on St. Lazaria Island in August, 1912, contained the remains of a great number of Tufted Puffins and young Glaucous-winged Gulls (Willett, 1912, p. 421).

Falco peregrinus anatum. Duck Hawk. Fairly well distributed among the islands but nowhere plentiful. Although the duck hawk of this region has been generally referred to *F. p. pealei*, specimens taken prove to be referable to *anatum*, as did specimens taken by the 1907 Alexander Expedition near Killisnoo, Admiralty Island (Grinnell, 1909, p. 215). On October 1, 1913, I saw one of these hawks swoop down and carry off a Forked-tailed Petrel from a small flock near the Sitka dock.

Falco columbarius suckleyi. Black Pigeon Hawk. In the last A. O. U. *Check-List* (1910, p. 165) Sitka is given as a record station for this species. I am informed by Professor W. W. Cooke that this record is based on the range as given by Baird, Brewer and Ridgway (1874, p. 143) in the key to the species of the genus *Falco*. Here the habitat of *F. c. suckleyi* is given as "northwest coast region from Oregon to Sitka." On page 147 the habitat is given as "coast district of northern California, Oregon and Washington (probably northward to Alaska)." The basis upon which Sitka is included in the range of the form as given on page 143 is not stated. Grinnell (1898, p. 123) mentions seeing pigeon hawks, presumably *F. c. suckleyi*, in the vicinity of Sitka during the summer of 1896. On August 10, 1913, while at an altitude of about 2500 feet in the mountains near Sitka, I shot a very dark colored pigeon hawk. Unfortunately it fell into an icy lake where it was impossible to secure it. This was the only time I noted the pigeon hawk in the region, and it must be regarded as far from common. As four specimens secured by the 1909 Alexander Expedition at Thomas Bay, Port Snettisham and Taku River, on the mainland, proved to be referable

to *F. c. columbarius* (Swarth, 1911, p. 63), it is very probable that this form also occurs at Sitka.

***Pandion haliaëtus carolinensis*.** Osprey. Rare summer visitant. Bischoff took specimens of this bird with the eggs near Sitka (Dall & Bannister, 1869, p. 272), and Bean (1882, p. 162) records a specimen taken at Hot Springs, near Sitka, June 9, 1880. I was informed by Merrill that the fish hawk is occasionally seen in the vicinity, and that a pair formerly nested at Silver Bay. I never met with the species personally in the region. J. Dixon saw four or five birds at Killisnoo, Admiralty Island, June 14, 1907 (Grinnell, 1909, p. 215).

***Asio flammeus*.** Short-eared Owl. Occurs on marsh lands during migrations, sometimes remaining into early winter. Forest Ranger Peterson gave me two specimens taken by him at Fish Bay, Baranof Island, November 27, 1912. Brightman saw a bird of this species in the marsh at Swan Lake, September 30, 1913.

***Scotiaptex nebulosa nebulosa*.** Great Gray Owl. Obtained at Sitka by Bischoff (Dall & Bannister, 1869, p. 273).

***Cryptoglaux funerea richardsoni*.** Richardson Owl. Merrill secured a specimen of this owl at Sitka in the fall of 1907.

***Otus asio kennicotti*.** Kennicott Screech Owl. Type taken at Sitka by Bischoff during the Russo-American Telegraph Expedition. Described by D. G. Elliot (1867, p. 99). Figured by Baird (1869, pl. xxvii). Merrill has seen this species in flight several times and found one specimen dead. He considers it far from common.

***Bubo virginianus saturatus*.** Dusky Horned Owl. During the two summers spent in the Sitkan district I never saw a live owl of any kind, although they were particularly sought for. From information secured, however, I should judge that the Dusky Horned Owl is the commonest owl of the region. Merrill has taken a number of specimens, and has seen several more that were shot in the vicinity of Sitka. A. J. Wilkus, who was formerly in charge of the government experimental farm at Sitka, gave me a specimen that he shot in his chicken yard at 2 A. M. August 29, 1912. Two birds, one of which I saw, were shot in the town on the night of September 25, 1913. F. Stephens took a specimen at Rodman Bay, Baranof Island, August 15, 1907 (Grinnell, 1909, p. 216).

***Nyctea nyctea*.** Snowy Owl. Winter visitant. Merrill took a male near Sitka, November 2, 1908, and a female November 17, following. I was told of several others shot in the vicinity in winter. Nelson (1887, p. 154) mentions a specimen in the National Museum collected at Sitka during the winter of 1881-82.

***Surnia ulula caparoch*.** Hawk Owl. Obtained by Bischoff at Sitka (Dall & Bannister, 1869, p. 274).

***Ceryle alcyon caurina*.** Northwestern Belted Kingfisher. Fairly common resident. Frequents the mouths of streams, and shores of islands and inlets. In early August, 1912, a nest containing young was noted in a gravel bank on Kruzof Island.

***Dryobates villosus sitkensis*.** Sitka Hairy Woodpecker. Not very common, but generally distributed throughout the timbered country. In a day's walk through the timber one would probably see or hear two or three of these birds. They are exceedingly wary and hard to secure. A specimen secured by the writer and one taken by Merrill, as well as the series from southeastern Alaska in the University of California Museum of Vertebrate Zoology, are certainly readily distinguishable from *D. v. harrisi* of the Puget Sound region by their light colored

under parts and more conspicuously white-spotted wing coverts. For this reason I have used the name given this bird by Swarth (1911b, pp. 313-318) instead of including it under *harrisi* as is done by the A. O. U. Committee.

***Dryobates pubescens nelsoni*.** Nelson Downy Woodpecker. I saw an adult male downy woodpecker on Kruzof Island August 25, 1913. I was armed only with a rifle at the time and did not collect it. Merrill has seen the species a few times near Sitka, and it was secured by Bischoff (Dall & Bannister, 1869, p. 274). It is one of the least common residents of the region. *Dryobates pubescens glacialis* of Grinnell (1910, p. 390).

***Picoides americanus americanus*.** American Three-toed Woodpecker. An adult male taken by C. Littlejohn at an altitude of 2300 feet near Hooniah, Chichagof Island, June 25, 1907, was used by Grinnell (1909, p. 217) as type of a new subspecies, *P. a. fumipectus*. This form, however, is not recognized by the A. O. U. Committee. A specimen of the three-toed woodpecker was taken by A. E. Hasselborg at Freshwater Bay, Chichagof Island, November 27, 1909 (Swarth, 1911a, p. 69).

***Sphyrapicus varius ruber*.** Northern Red-breasted Sapsucker. Merrill has seen this bird on one or two occasions in the timbered swamps back of Sitka. It is, however, decidedly uncommon. Although the name *S. ruber notkensis* is used by the A. O. U. Committee for the northern form of the Red-breasted Sapsucker, it seems to me that, in view of the facts pointed out by Swarth (1912, pp. 35-38), this name is untenable.

***Colaptes auratus luteus*.** Northern Flicker. I never saw this bird in the region, and Merrill has noted it but once, on September 26, 1913, when he saw a single bird in the swamp back of Sitka. Grinnell (1898, p. 127) mentions seeing dance costumes of the Indians decorated with wing and tail feathers of this and the next species. I have seen a number of these costumes but the feathers used were all of the next species.

***Colaptes cafer saturator*.** Northwestern Flicker. Rather frequently seen in the forests. An immature specimen was secured on Biorka Island July 24, 1912.

***Chaetura vauxi*.** Vaux Swift. Fifteen or twenty of these swifts were seen at Patterson Bay, east side of Baranof Island, September 7, 1913. They were feeding around a waterfall, and a specimen was secured. A single bird was also noted at Cascade Bay, a few miles to the northward, September 9, following.

***Selasphorus rufus*.** Rufous Hummingbird. Summer visitant. Generally distributed but not very plentiful. Noted from the water's edge to 3500 feet in the mountains.

***Empidonax difficilis difficilis*.** Western Flycatcher. Summer visitant. I saw and heard this species occasionally in the woods back of Sitka. Grinnell (1898, p. 128) found them common in the same locality in the summer of 1896. June 30 he took a female containing an egg ready to be laid. He noted young appearing with their parents August 1. Bean (1882, p. 161) took an adult male near Sitka June 5, 1880, and saw several others in the same locality. A specimen was taken by F. Stephens at Red Bluff Bay, Baranof Island, June 14, 1907, and one was seen at Rodman Bay, same island, in late August, following (Grinnell, 1909, p. 220).

***Pica pica hudsonia*.** Magpie. According to Merrill, the magpie is only an occasional fall straggler to Sitka, being more frequently seen on Chichagof and Admiralty islands. He secured a male near Sitka, October 20, 1908, and a female about twenty miles north of Sitka, October 28, 1912. He has seen a few others in the vicinity in fall. According to Dall and Bannister (1869, p. 286),

Bischoff found the species abundant at Sitka. It may possibly have been more plentiful in Bischoff's time. At any rate it can not be considered abundant, nor even common, at the present time.

Cyanocitta stelleri stelleri. Steller Jay. Common resident. Most plentiful along the shores and in clearings in the timber.

Corvus corax principalis. Northern Raven. Very common and generally distributed throughout the region. Plentiful in the streets of Sitka and on the nearby beaches, feeding on refuse and carrion. They were also noted on the tops of the mountain ranges where they were frequently seen playing on the snow banks and glaciers. They would dig holes in the snow and, lying down in them, would scratch the snow over their backs with bill and wings, the coolness secured in this way evidently affording them great enjoyment. They frequently follow the bald eagles when the latter are hunting, probably in hopes of securing a share of the prey. On one occasion I had killed a deer and left it for a couple of hours. On my return the eyes and part of the intestines had been picked out by the ravens. I was never able to find the nest of this species nor could I find anyone who had seen one. They certainly breed in large numbers somewhere in the region but probably some little distance from Sitka.

The raven is very fond of clams, abalones, sea urchins and other shell fish, which are secured from the rocks at low tide. The shells are frequently found high up on the hillsides, where they have been carried by the ravens. On one occasion Merrill watched a number of birds standing around a hog that was digging clams from the mud. As fast as the clams were brought to the surface they were appropriated by the ravens.

The raven heads the list of birds deemed sacred by the Indians. Among others are the owl, woodpecker and kingfisher. These are often seen in grotesque figures on the totem poles.

Corvus caurinus. Northwestern Crow. Abundant on the islands and along the beaches. Nests from which the young had emerged were noted on St. Lazaria and Biorka islands. During the nesting season this Crow feeds to a great extent on the eggs and young of sea birds. In the fall after the young are raised and the sea birds are through nesting, they gather in large flocks along the beaches at low tide, feeding on shell fish and crustaceans, and when the tide is in, scratching among the drift kelp along the shore.

Nucifraga columbiana. Clarke Nutcracker. Single specimen secured by Bischoff at Sitka (Dall & Bannister, 1869, p. 286).

Euphagus carolinus. Rusty Blackbird. A few specimens taken at Sitka by Bischoff (Dall & Bannister, 1869, p. 285). Single specimen seen by A. E. Hasselborg at Freshwater Bay, Chichagof Island, November 25, 1909 (Swarth, 1911a, p. 80).

Pinicola enucleator flammula. Kadiak Pine Grosbeak. According to Merrill, this bird is occasionally seen throughout the year but is most plentiful in October and November. On August 24, 1912, while Merrill and I were walking in the swamp back of Sitka, he secured an immature bird of this species which he presented to me. This was the only one seen at the time. August 13, 1913, I saw a small flock of these birds in the tops of tall trees along Indian River. One was shot but dropped in the dense underbrush and was lost. The species was noted by the 1907 Alexander Expedition on Chichagof Island (Hooniah, June 25, Port Frederick, July 25, and Idaho Inlet, July 20-25), and six specimens secured (Grinnell, 1909, p. 222). It was also taken at Sitka by Bischoff (Dall & Bannister, 1869, p. 281).

***Loxia curvirostra minor*.** Crossbill. Common, though apparently very irregular in their movements. During August, 1912, I secured several specimens of this bird and found it very common on Kruzof and St. Lazaria islands, and in the forest back of Sitka. At the same season in 1913, they were far from plentiful, the only ones seen being high up on the mountain sides. Specimens taken in 1912 seem to possess the characters ascribed by Grinnell (1909, p. 223) to the race *L. c. sitkensis*. This form has not been accepted by the A. O. U. Committee.

***Loxia leucoptera*.** White-winged Crossbill. Four specimens taken by the 1907 Alexander Expedition at Hooniah, Chichagof Island, June 25 (Grinnell, 1909, p. 225).

***Leucosticte tephrocotis littoralis*.** Hepburn Rosy Finch. A specimen taken at Sitka by Bischoff and one taken at Fort Simpson, B. C., were used by Baird (1869, p. 318) in describing this form. The species was noted by the 1907 Alexander Expedition near Hooniah, Chichagof Island, at an altitude of about 2500 feet, June 21-27 (Grinnell, 1909, p. 226). Although I traversed several of the mountain ranges of Baranof Island rather thoroughly and looked particularly for this bird, I never saw it, so it must be rather uncommon.

***Acanthis linaria linaria*.** Redpoll. Specimens from Sitka mentioned by Dall and Bannister (1869, p. 28).

***Spinus pinus*.** Pine Siskin. Common summer resident. Found most plentifully in shrubbery and evergreen growth near the town.

***Plectrophenax nivalis nivalis*.** Snow Bunting. Occasional winter visitant. Merrill saw three birds at Sitka in early December, 1910. He also noted five birds in the same locality, November 17, 1911, and seven birds December 7, 1912. One of the latter was secured. In all these instances the birds only remained a few days and disappeared. The species was also taken at Sitka by Bischoff (Dall & Bannister, 1869, p. 282).

***Calcarius lapponicus alascensis*.** Alaska Longspur. Taken at Sitka by Bischoff (Dall & Bannister, 1869, p. 283).

***Passerculus sandwichensis sandwichensis*.** Aleutian Savannah Sparrow. Two specimens taken at Sitka by Bischoff (Dall & Bannister, 1869, p. 284). In September, 1913, I found Savannah sparrows rather common in grassy marshes at mouths of streams in the vicinity of Sitka. A specimen of *P. s. sandwichensis* was taken at Silver Bay September 23.

Swarth (1911a, p. 84) took a specimen of this bird at Three-mile Arm, Kuiu Island, May 3, 1909, and three more at Egg Harbor, Coronation Island, May 15, following, but did not find it to the eastward of these points. The 1908 Alexander Expedition did not note the species at all in the Prince William Sound district (Grinnell, 1910, p. 399). From the above facts it would seem (as pointed out by Swarth) that the regular migration route of this bird lies along the extreme western edge of the archipelago.

***Passerculus sandwichensis alaudinus*.** Western Savannah Sparrow. The breeding Savannah sparrow of the Sitka district has been referred to both *P. s. alaudinus* and *P. s. savanna*. As I did not secure a series of specimens, I am not able to definitely refer them to one form or the other. They seemingly possess some characteristics of each, and a large series of specimens will have to be brought together before their standing can be satisfactorily determined. In view of these facts I have tentatively used the name *alaudinus*, under which the birds of this region are included in the latest A. O. U. *Check-List*.

Savannah sparrows taken at Sitka by Bischoff and recorded as *P. savanna* (Dall & Bannister, 1869, p. 283), were later examined by Nelson (1887, p. 187)

and pronounced by him to be "typical examples of *alaudinus*." Two specimens secured by the 1907 Alexander Expedition on Baranof Island, and one from Chichagof Island, are stated by Grinnell to be nearer *savanna* than *alaudinus*. A nest containing five fresh eggs was found by C. Littlejohn at an altitude of about 2600 feet near Hooniah, Chichagof Island, June 25, 1907 (Grinnell, 1909, p. 228). I found Savannah sparrows fairly common in summer on grass lands from 2500 to 3500 feet altitude on the mountains of Baranof Island. They were undoubtedly breeding in this locality but no nests were found. A specimen was taken but was very badly shot up and was not preserved. The bill of this specimen was small and the superciliary stripe was whitish, rather than yellowish. For these reasons, at the time, I considered it *alaudinus*.

Zonotrichia coronata. Golden-crowned Sparrow. Abundant migrant. Arrived in the neighborhood of Sitka September 1, and was still present in some numbers a month later, although the height of migration seemed to have passed. It was noted from the shore up to above timber line on the mountains. According to Merrill, the return migration takes place mostly in late April and early May.

Spizella monticola ochracea. Western Tree Sparrow. One specimen taken at Sitka by Bischoff (Dall & Bannister, 1869, p. 285).

Junco hyemalis oregonus. Oregon Junco. Abundant summer resident, remaining until late in the fall and possibly wintering, though I secured no positive information on the latter point. Breeds from the salt water up to at least 2000 feet around mountain meadows. About August 15 large companies of adults and young appear along the beaches where they feed among the piles of kelp and drift-wood.

Melospiza melodia rufina. Sooty Song Sparrow. This species, originally described from Sitka (Bonaparte, 1850, p. 477), is a common summer visitant in brush and grass lands on islands and along the shore. After the latter part of August, I was unable to find it, all song sparrows observed after that time belonging to the next form. A nest containing four slightly incubated eggs was taken by F. Stephens at Hooniah, Chichagof Island, June 23, 1907 (Grinnell, 1909, p. 230).

Melospiza melodia caurina. Yakutat Song Sparrow. Abundant migrant. Appears in the vicinity of Sitka about August 15, and by September 1 is very plentiful. Was still common when I left, in early October. I did not secure any data as to the time of the spring migration.

Melospiza lincolni gracilis. Forbush Sparrow. This bird was first described from Sitka by Kittlitz (1858, p. 199), as *Emberiza gracilis*; therefore I have used the name *gracilis* instead of *striata* which is used in the last A. O. U. *Check-List*. It is apparently a fairly common summer visitant during some years, and much less plentiful during others. In the summer of 1912 I found it common in the grass around Swan Lake and in marshes at the head of Silver Bay. Young birds just out of the nest were noted in the former locality July 28. During 1913 I visited both of these localities several times but failed to find the species at all, nor did I note it anywhere else in the region. Grinnell (1898, p. 129) took specimens at Swan Lake, June 25, 1896, one of which was a juvenile about one-third grown. During the summer of 1907 the Alexander Expedition noted this bird at Bear Bay, Baranof Island, and at Port Frederick, Idaho Inlet, and Hooniah, Chichagof Island. A nest containing five young was found by Littlejohn in the latter locality June 26 (Grinnell, 1909, p. 231).

Passerella iliaca townsendi. Townsend Fox Sparrow. Common summer

visitant on brush lands. Partial to the smaller grass and brush covered islands like St. Lazaria and Biorka. It was still fairly common when I left, in early October.

***Hirundo erythrogastra*.** Barn Swallow. Common summer visitant; most plentiful around towns. The majority of these birds leave for the south about August 15. One or two, however, were noted as late as August 22 (1912).

***Iridoprocne bicolor*.** Tree Swallow. Common summer visitant in timbered localities. In late July after the young are out of the nests, they appear along the coast in small flocks, feeding over the surface of the water. They leave mostly about August 1, but one bird was seen as late as August 22 (1912).

***Bombycilla garrula*.** Bohemian Waxwing. Merrill has the wings of a specimen taken by him near Sitka, August 27, 1904.

***Vermivora celata lutescens*.** Lutescent Warbler. Fairly common summer visitant along clearings and on brush lands at mouths of streams. I noted it near Sitka, at Old Sitka, and at head of Silver Bay. It was seen by Dixon at Port Frederick, Chichagof Island, in late July, 1907 (Grinnell, 1909, p. 234).

***Dendroica aestiva rubiginosa*.** Alaska Yellow Warbler. Fairly common summer visitant in favorable localities. I noted this species along Indian River, along the stream at Old Sitka, at the head of Silver Bay, and, once, on Kruzof Island.

***Dendroica townsendi*.** Townsend Warbler. Adult female taken by Grinnell (1898, p. 129) near Sitka, August 14, 1896, and two others seen at the same time. According to Hartlaub (1883, p. 267), a specimen from Sitka is in the Bremen and Stockholm collection. Male seen by Stephens at Red Bluff Bay, Baranof Island, June, 1907 (Grinnell, 1909, p. 235).

***Wilsonia pusilla pileolata*.** Pileolated Warbler. Seemingly the commonest of the warblers summering in the region. Particularly plentiful along Indian River, at Old Sitka and at the head of Silver Bay. Also observed on Kruzof and several of the smaller islands. Obtained at Sitka by Bischoff with nest and eggs (Dall & Bannister, 1869, p. 278—"Myodiocetes pusillus").

***Anthus rubescens*.** Pipit. Common in summer on grassy slopes of the mountains above timber line, where it undoubtedly breeds. The breeding female taken by Grinnell (1898, p. 129), at Indian River June 10, 1896, had probably straggled down from a nearby mountain to feed. According to Merrill, common along the coast during migrations.

***Cinclus mexicanus unicolor*.** Dipper. Fairly common along streams. Noted frequently on Indian River and on streams at head of Silver Bay. Also seen on east side of Baranof Island. Noted by Dixon at Port Frederick, Chichagof Island, July, 1907 (Grinnell, 1909, p. 237). Previously recorded from Sitka by Kittlitz and Bischoff.

***Nannus hiemalis pacificus*.** Western Winter Wren. Common summer visitant on grass and brush lands. Especially numerous on some of the smaller islands. Was fairly plentiful as late as October 1, but probably does not winter.

***Certhia familiaris occidentalis*.** California Creeper. Not very common. Seen occasionally at Indian River and once on Kruzof Island. Several specimens secured by Grinnell (1898, p. 130) in summer of 1896; two scarcely fledged juveniles taken July 2. Previously recorded from Sitka by Kittlitz (1858, p. 212).

***Sitta canadensis*.** Red-breasted Nuthatch. A bird of this species was noted by the 1907 Alexander Expedition at Port Frederick, Chichagof Island, the last of July (Grinnell, 1909, p. 238); Shaw (1907, p. 122) mentions hearing the harsh, nasal cry of the nuthatch in the woods back of Sitka.

***Penthestes rufescens rufescens*.** Chestnut-backed Chickadee. The most com-

mon land bird of the region. Plentiful in timbered sections from the coast well up into the mountain meadows. Grinnell (1898, p. 130) secured fully fledged young June 26, 1896.

***Regulus satrapa olivaceus*.** Western Golden-crowned Kinglet. Rather plentiful in the forests throughout the region. In the latter part of September they were gathered in companies in tree tops near the coast, apparently preparing to migrate.

***Regulus calendula grinnelli*.** Sitka Kinglet. Not common. Noted in woods back of Sitka and at head of Silver Bay. Type specimen taken by Grinnell at Sitka in 1896 (Palmer, 1897, p. 399). Two specimens taken at Sitka by Bischoff were recorded as *R. calendula* (Dall & Bannister, 1869, p. 276). On Chichagof Island the species was noted as rare by Dixon at Hooniah, June 21-27, and at Port Frederick, July 25 to August 1 (Grinnell, 1909, p. 239).

***Hylocichla ustulata ustulata*.** Russet-backed Thrush. Fairly common summer visitant along streams and on some of the islands. Not noted after August 15. F. Stephens found a nest containing four young ready to fly, at Idaho Inlet, Chichagof Island, July 22, 1907 (Grinnell, 1909, p. 240).

***Hylocichla guttata nanus*.** Dwarf Hermit Thrush. Common summer visitant. Especially plentiful on wooded islands. Grinnell (1898, p. 130) obtained young July 2 and found others only half fledged as late as August 15 (1896).

***Planesticus migratorius propinquus*.** Western Robin. Common summer visitant. Appears in large flocks along the shores in late July and August after the young are raised. Continues rather plentiful until October. Merrill secured a perfect albino of this species August 12, 1909. Grinnell (1909, p. 241) has given the name *P. m. caurinus* to the robin inhabiting the Sitka district. This form has not been accepted by the A. O. U. Committee.

***Ixoreus naevius naevius*.** Varied Thrush. Rather common in the woods from the ocean nearly up to timber line. Particularly plentiful on St. Lazaria and Biorka islands. Grinnell (1898, p. 131) took the first young July 2. Merrill informs me that he has seen this bird throughout the winter.

QUESTIONABLE RECORDS

The records of the following species are believed to be erroneous or extremely questionable.

***Aethia pygmaea*.**

***Aethia cristatella*.** Recorded by Schlegel. These two species might straggle to the vicinity of Sitka but the Schlegel records are unsatisfactory.

***Diomedea albatrus*.**

***Puffinus tenuirostris*.** Recorded by Schlegel. It is probable that these two birds do occur in the vicinity, but further records seem necessary to establish the fact.

***Phalacrocorax perspicillatus*.** Recorded by Schlegel. Occurrence highly improbable.

***Aegialitis meloda*.** Recorded by Kittlitz (as *Charadrius melodus*). The bird seen was probably *Ae. semipalmata*.

***Bonasa umbellus sabini*.** Recorded by Dall as taken by Bischoff. Occurrence highly improbable. I am informed by Professor Cooke that there is a specimen in the Bischoff collection in the National Museum originally marked from Sitka. Later on (before 1874) this locality was scratched out and New Westminster, B. C., written over it.

***Accipiter cooperi*.** Recorded by Grinnell (1898, p. 127). Mr. Grinnell in-

forms me that he now has serious doubts as to the accuracy of his identification of this species at Sitka.

***Parus atricapillus*.**

***Hylocichla aliciae*.** Recorded by Dall. Professor Cooke informs me that there are no specimens of either of these two latter forms in the Bischoff collection in the National Museum. Neither are there specimens of any other forms that could have been confounded with them. He considers the publication by Dall of their being taken at Sitka by Bischoff to be a mistake of the writer.

LITERATURE CITED

1850. Bonaparte, Charles Lucian. *Conspectus Avium*, 1, 1850, p. 477.
Description of *Passerella rufina* (*Melospiza melodia rufina*) from Sitka.
1858. Kittlitz, F. H. von. *Denkwürdigkeiten einer Reise nach dem russischen Amerika, nach Mikronesien und durch Kamtschatka von F. H. von Kittlitz*. 2 vols. Gotha, 1858.
Includes important notes on specimens taken and birds observed by the writer in the vicinity of Sitka, June 23 to July 31, 1827.
- 1862-84. Schlegel, H. *Muséum d'hist. natur. des Pays-Bas. Revue méth. et crit. de la collection d'Oiseaux*. 7 vols. Leyde, 1862-84.
A catalogue of birds in the Leyden Museum. The following species were mentioned from Sitka, probably all erroneously: *Simorhynchus camtschaticus* (*Aethia pygmaea*), *Simorhynchus cristatellus* (*Aethia cristatella*), *Puffinus tenuirostris*, *Diomedea brachyura* (*albatrus*), and *Graculus* (*Phalacrocorax*) *perspicillatus*.
1867. Elliot, D. G. *Proc. Acad. Nat. Sci. Phila.* xix, 1867, p. 99.
Description of *Scops* (*Otus asio*) *kennicotti* from Sitka.
1869. Baird, Spencer F. On Additions to the Bird-Fauna of North America, made by the Scientific Corps of the Russo-American Telegraph Expedition. *Trans. Chicago Acad. Sci.*, vol. 1, part ii, 1869, pp. 311-325.
Mention of *Scops* (*Otus asio*) *kennicotti*, *Leucosticte littoralis* and *Puffinus tenuirostris* from Sitka, with color plates of the three species. The record of the latter species quoted from Schlegel.
1869. Dall, William H., and Bannister, Henry M. List of the Birds of Alaska, with Biographical Notes. *Trans. Chicago Acad. Sci.*, vol. 1, part ii, 1869, pp. 267-310.
The first list of the birds of Alaska published in English. Includes notes on a great many species secured by Ferdinand Bischoff, a member of the scientific corps of the Russo-American Telegraph Expedition, who was stationed at Sitka in 1865-66.
1873. Finsch, Dr. Otto. Zur Ornithologie Nord-west Amerikas. In *Naturwissenschaftlicher Verein zu Bremen, Abhandlungen*, vol. iii, pp. 17-68. Bremen, 1873.
All matter pertaining to Sitka quoted from Schlegel, Kittlitz, Baird, and Dall and Bannister.
1874. Baird, Spencer F., Brewer, T. M., and Ridgway, Robert. *A History of North American Birds*. 3 vols. Boston, 1874.
Nearly all Sitka matter quoted from previous publications.
1882. Bean, Tarleton H. Notes on Birds Collected during the Summer of 1880 in Alaska and Siberia. *Proc. U. S. National Museum*, v, 1882, pp. 144-173.
Several days spent at Sitka during June, 1880, and a number of specimens collected.
1883. Hartlaub, Dr. G. Beitrag zur Ornithologie von Alaska. *Journal fur Ornithologie*, xxxi, 1883, pp. 257-286.
Matter pertaining to Sitka all quoted.
1887. Nelson, E. W. Report upon Natural History Collections made in Alaska, 1877-1881. Arctic Series of Publications Issued in Connection with the Signal Service, U. S. Army, no. iii, 1887.
Matter pertaining to Sitka nearly all quoted.
- 1897a. Grinnell, Joseph. Petrels of Sitka, Alaska. *Nidologist*, iv, 1897, pp. 76-78.
Describes nesting of *Oceanodroma leucorhoa* (= *beali*) and *Oceanodroma furcata* on St. Lazaria Island.

- 1897b. Grinnell, Joseph. Notes on the Marbled Murrelet. *Osprey*, i, 1897, pp. 115-117. Vicinity of Sitka.
1897. Palmer, William. *Auk*, xiv, 1897, pp. 399-401.
Description of *Regulus calendula grinnelli*. Type from Sitka.
1898. Grinnell, Joseph. Summer Birds of Sitka, Alaska. *Auk*, xv, 1898, pp. 122-131.
A list of sixty-six species of birds noted by the writer in the vicinity of Sitka during the summer of 1896, with notes on the nesting of several species.
1898. Mailliard, Joseph. Notes on the Nesting of the Forked-tailed Petrel (*Oceanodroma furcata*). *Auk*, xv, 1898, pp. 230-233.
On St. Lazaria Island.
- 1902-3. Dresser, Henry Eales. A Manual of Palae-arctic Birds. 2 vols. London, 1902-3.
1906. Emerson, W. Otto. *Oceanodroma leucorhoa* and Its Relatives on the Pacific Coast. *Condor*, viii, 1906, pp. 53-55.
Descriptions of *Oceanodroma beali* from Sitka Bay, Alaska, and *Oceanodroma beldingi* from Netarts Bay, Oregon.
1907. Shaw, W. T. Sitka Birds. *Alaska-Yukon Magazine*, iv, 1907, pp. 121-123.
Short, popular account of some birds of Sitka.
1909. Grinnell, Joseph. Birds and Mammals of the 1907 Alexander Expedition to South-eastern Alaska. The Birds. Univ. Calif. Publ. Zool., 5, February 18, 1909, pp. 181-244.
Many notes from Baranof and Chichagof islands. Descriptions of *Lagopus (lagopus) alexandrae*, *Lagopus (rupestris) dixonii*, *Buteo borealis alascensis*, *Picoides americanus fumipectus*, *Loxia curvirostra sitkensis* and *Planesticus migratorius caurinus*.
1910. American Ornithologists' Union Check-List of North American Birds. Prepared by a Committee of the American Ornithologists' Union. Third Edition (Revised). New York, 1910.
Mentions many species from Sitka.
1910. Grinnell, Joseph. Birds of the 1908 Alexander Alaska Expedition. Univ. Calif. Publ. Zool., vol. 5, March 5, 1910, pp. 361-428.
Reference to many species from Sitka. Descriptions of *Ceryle alcyon caurina*, *Dryobates pubescens glacialis* and *Penthestes rufescens vivax*.
- 1911a. Swarth, Harry S. Birds and Mammals of the 1909 Alexander Expedition to Alaska. The Birds. Univ. Calif. Publ. Zool., vol. 7, January 12, 1911, pp. 9-112.
Reference to several species from Baranof and Chichagof islands.
- 1911b. Swarth, Harry S. Description of a New Hairy Woodpecker from Southeastern Alaska. Univ. Calif. Publ. Zool., vol. 7, October 9, 1911, pp. 313-318.
Dryobates villosus sitkensis.
1912. Swarth, Harry S. Report on a Collection of Birds and Mammals from Vancouver Island. The Birds. Univ. Calif. Publ. Zool., vol. 10, February 13, 1912, pp. 13-84.
1912. Willett, George. Report on Birds of St. Lazaria Bird Reservation, Alaska. *Bird-Lore*, xiv, 1912, pp. 419-426.
Notes on birds observed on St. Lazaria Island during summer of 1912.
Los Angeles, California, January 21, 1914.